OIPE JC56
JUN 07 2004
PATENT & TRADEMARK OFFICE

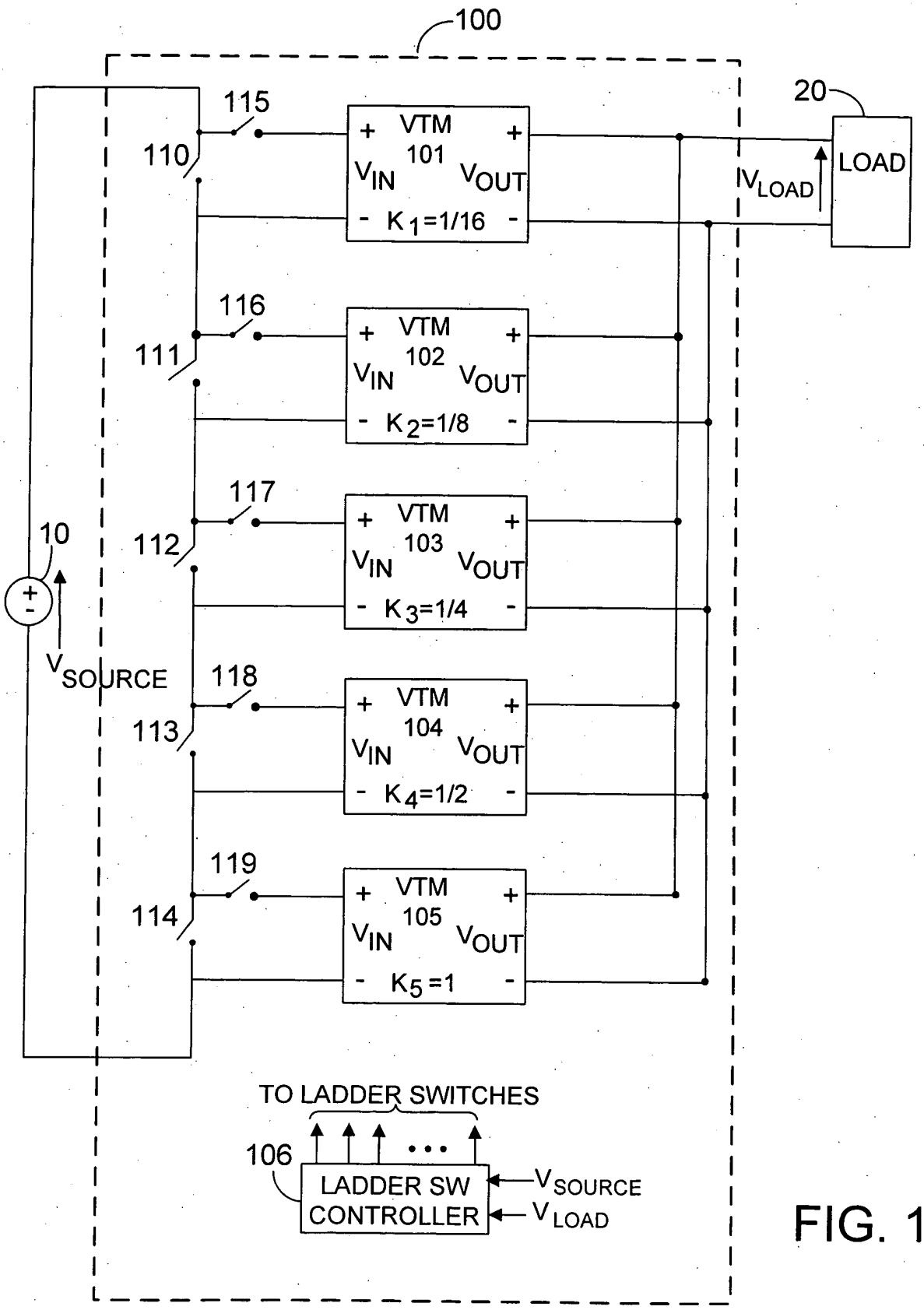


FIG. 1

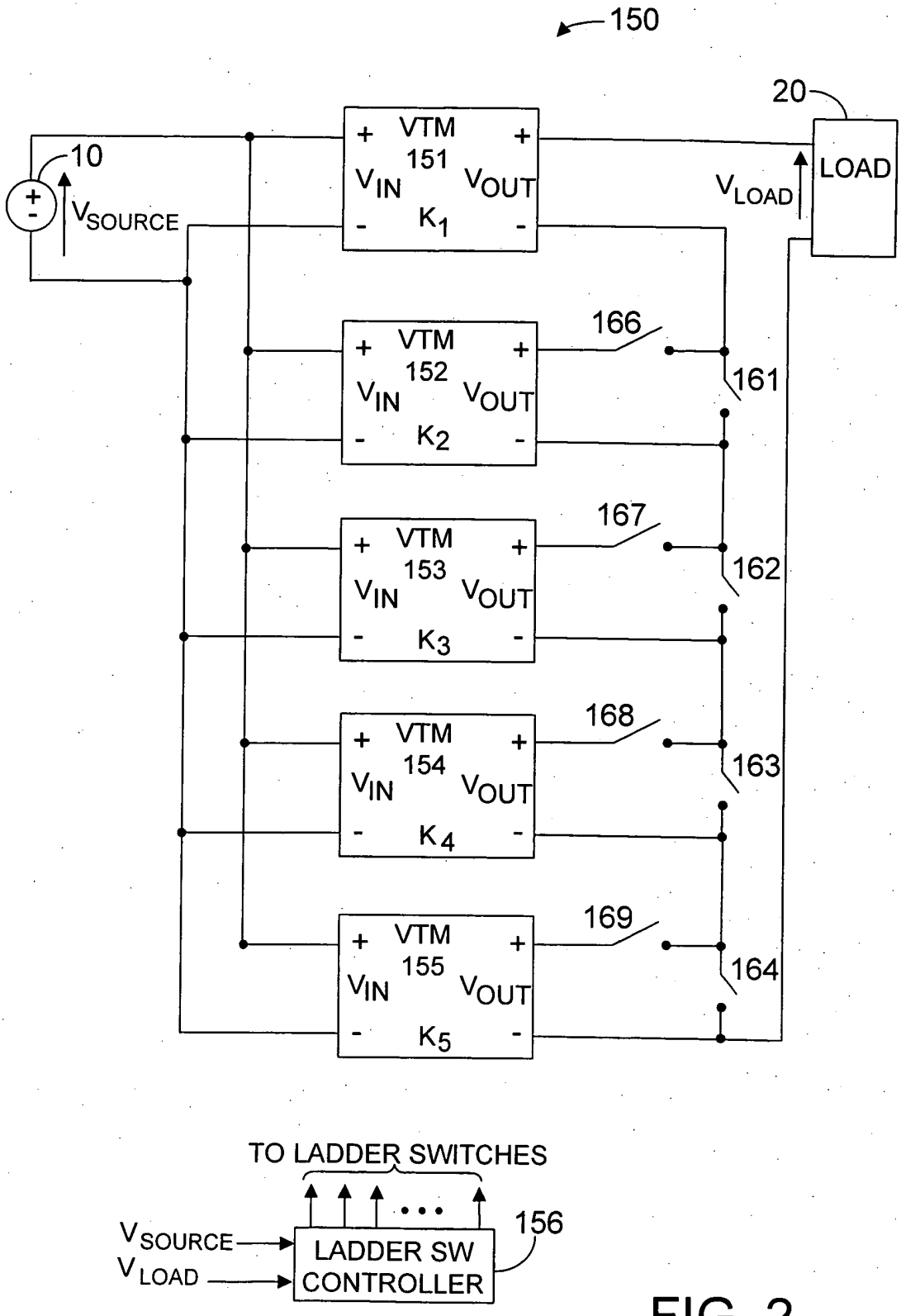
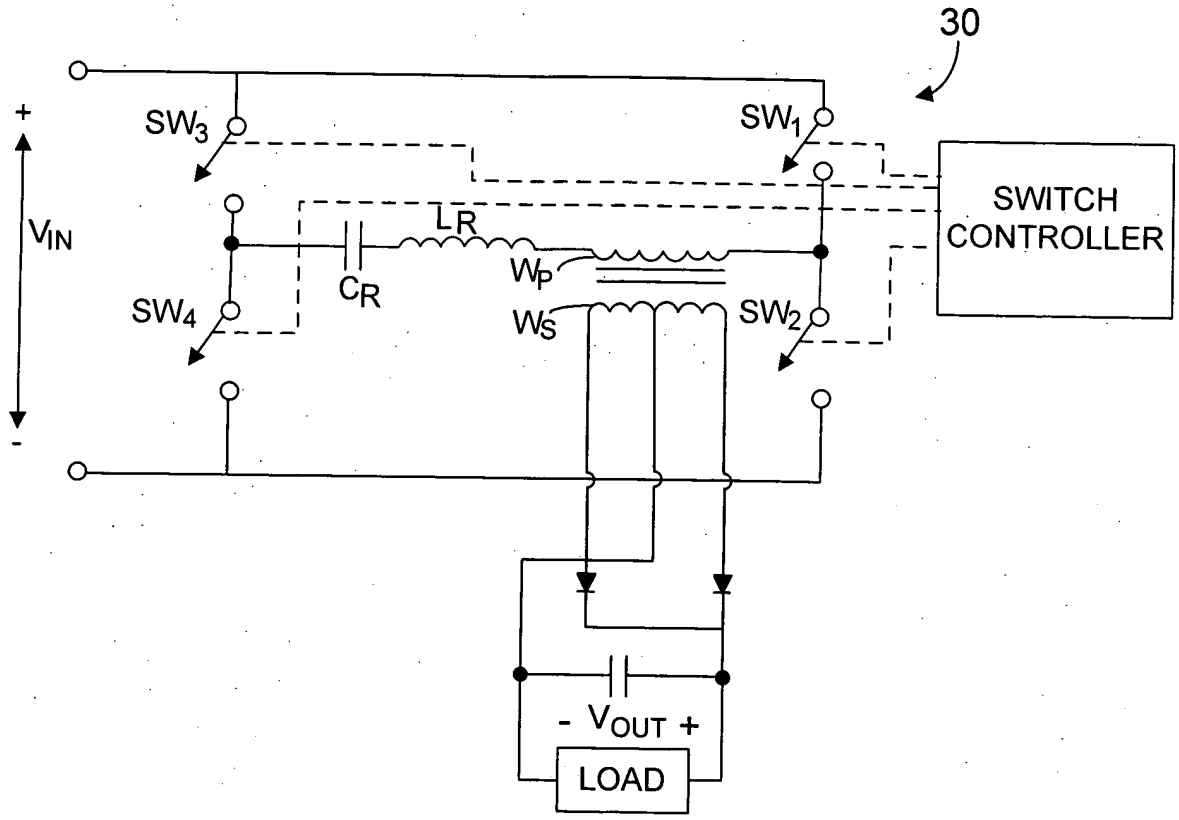

150
20
10
VSOURCE
VTM 151
VIN
VOUT
K1
VLOAD
LOAD
166
VTM 152
K2
161
167
VTM 153
K3
162
168
VTM 154
K4
163
169
VTM 155
K5
164
TO LADDER SWITCHES
156
LADDER SW CONTROLLER

FIG. 2



PRIOR ART
FIG. 3

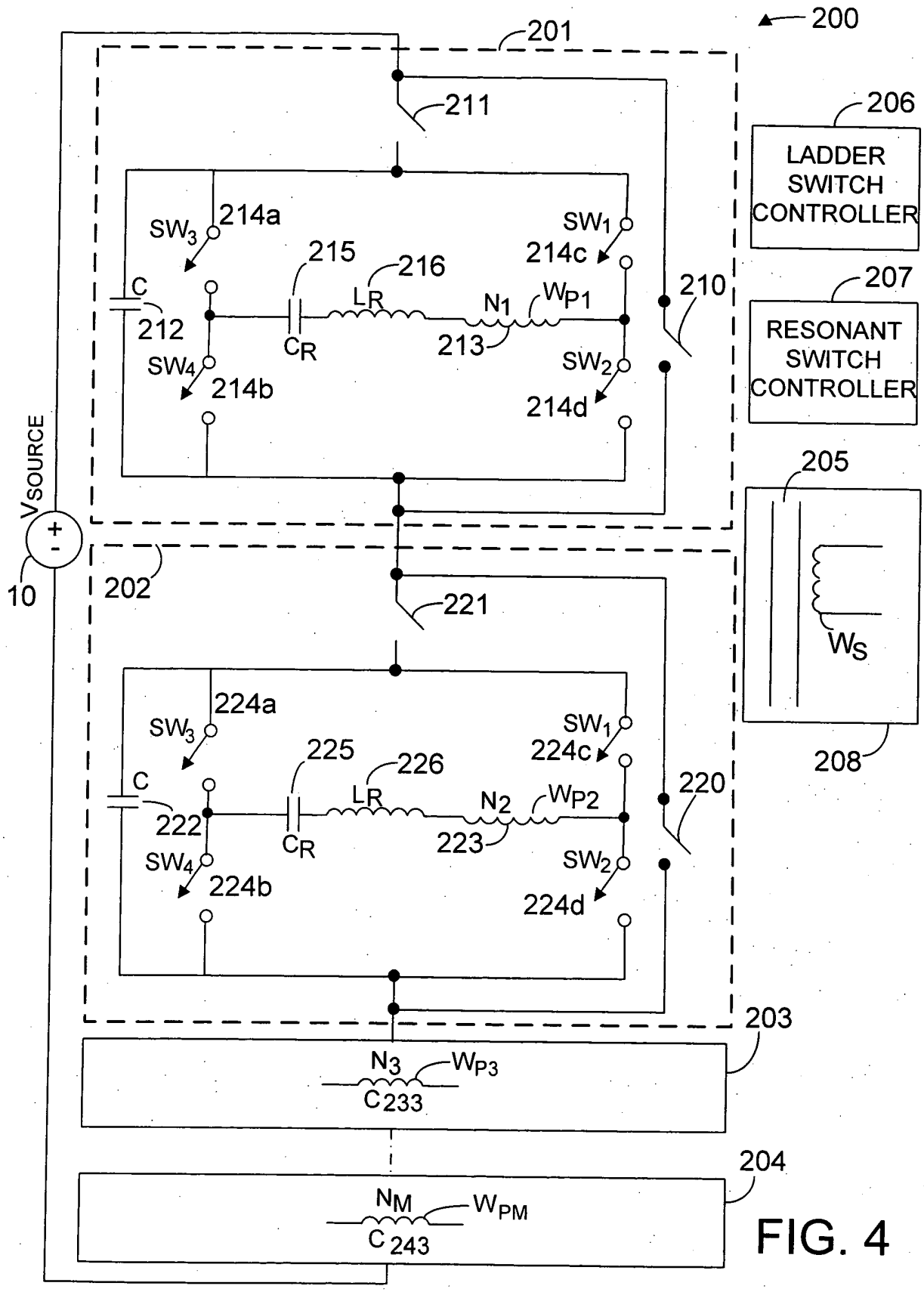

200
201
211
206
LADDER SWITCH CONTROLLER
207
RESONANT SWITCH CONTROLLER
205
208
210
220
SW3
214a
SW1
214c
215
216
C
212
LR
N1
WP1
213
CR
SW4
214b
SW2
214d
VSOURCE
+
-
10
202
221
224a
SW3
SW1
224c
225
226
C
222
LR
N2
WP2
223
CR
SW4
224b
SW2
224d
WS
203
N3
WP3
C233
204
NM
WPM
C243

FIG. 4

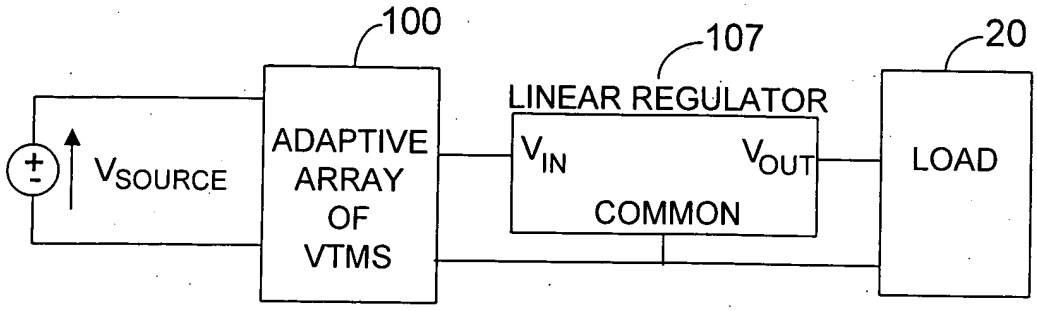

100
107
20
LINEAR REGULATOR
ADAPTIVE ARRAY OF VTMS
V_{IN}
V_{OUT}
COMMON
LOAD
V_{SOURCE}

FIG. 5A

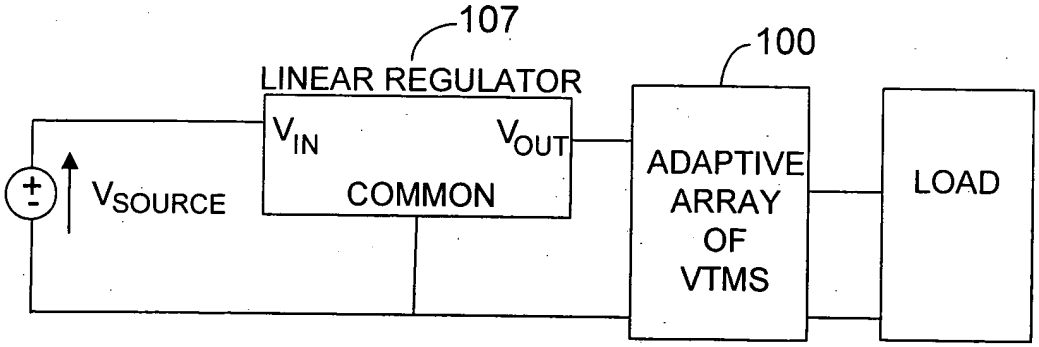

107
100
LINEAR REGULATOR
V_{IN}
V_{OUT}
COMMON
ADAPTIVE ARRAY OF VTMS
LOAD
V_{SOURCE}

FIG. 5B

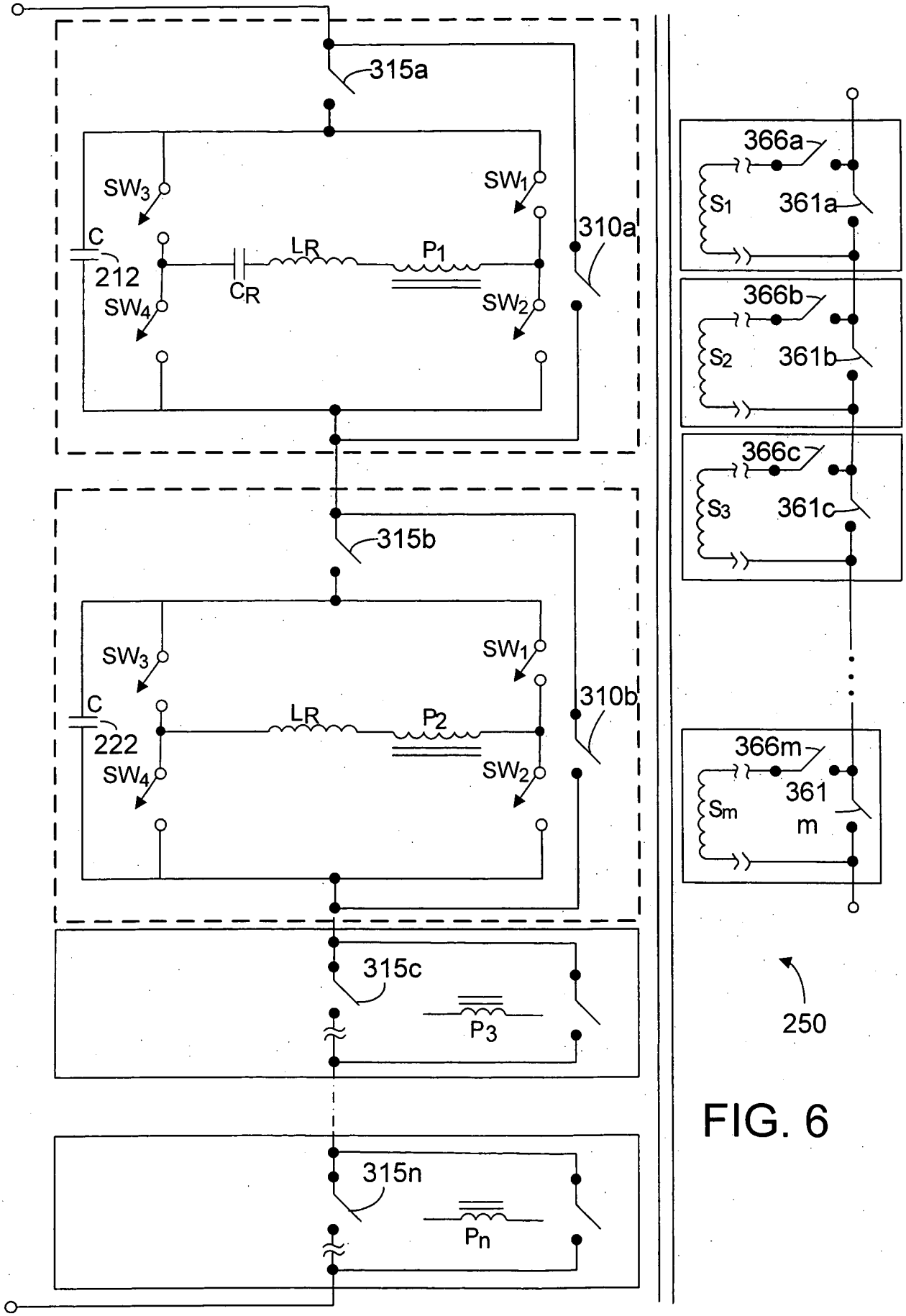

315a
SW3
SW1
C
212
LR
P1
CR
SW4
SW2
310a
315b
SW3
SW1
C
222
LR
P2
SW4
SW2
310b
315c
P3
315n
Pn
366a
S1
361a
366b
S2
361b
366c
S3
361c
366m
Sm
361
m
250

FIG. 6

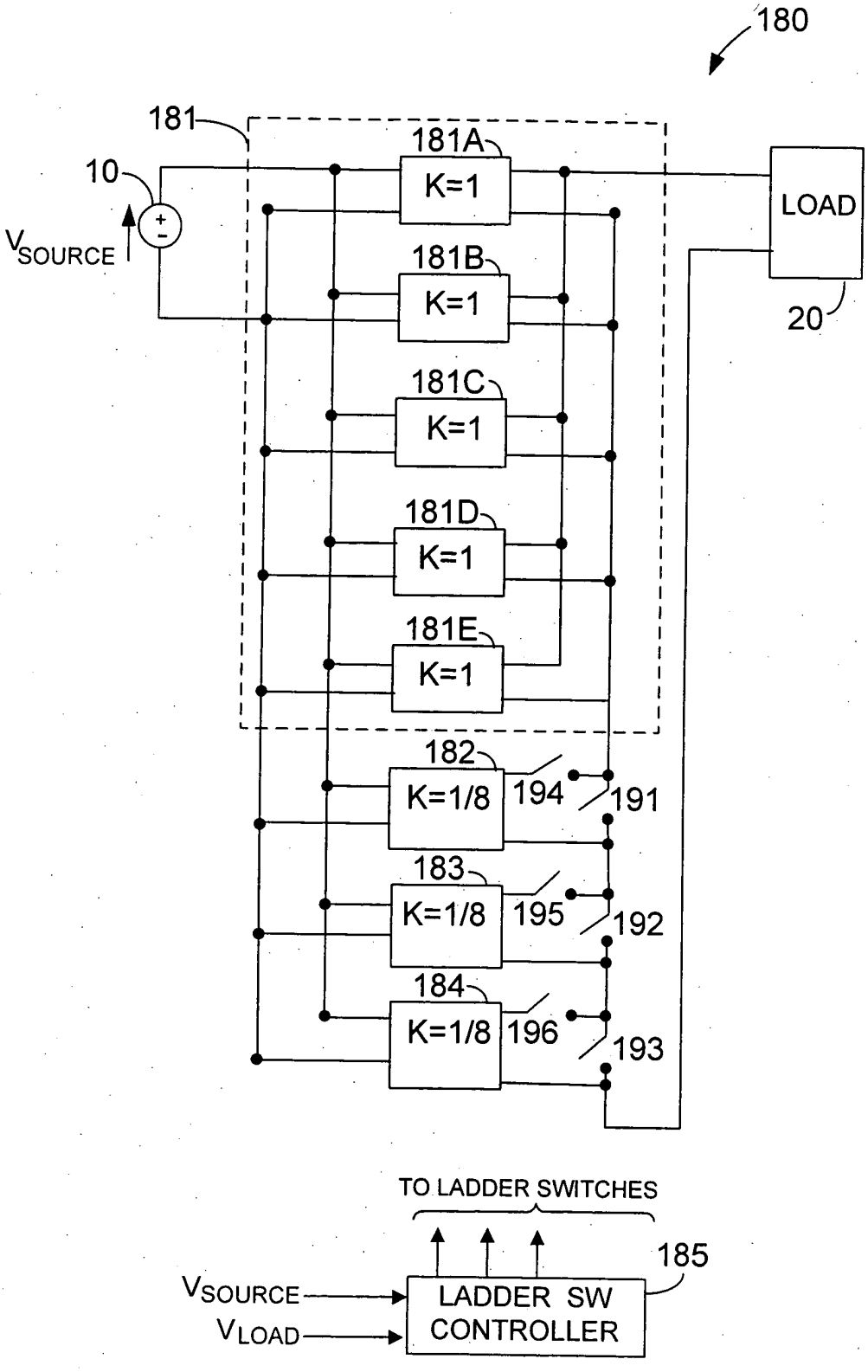

180
181
181A
K=1
10
+
-
V_{SOURCE}
LOAD
181B
K=1
20
181C
K=1
181D
K=1
181E
K=1
182
K=1/8
194
191
183
K=1/8
195
192
184
K=1/8
196
193
TO LADDER SWITCHES
185
V_{SOURCE}
V_{LOAD}
LADDER SW CONTROLLER

FIG. 7

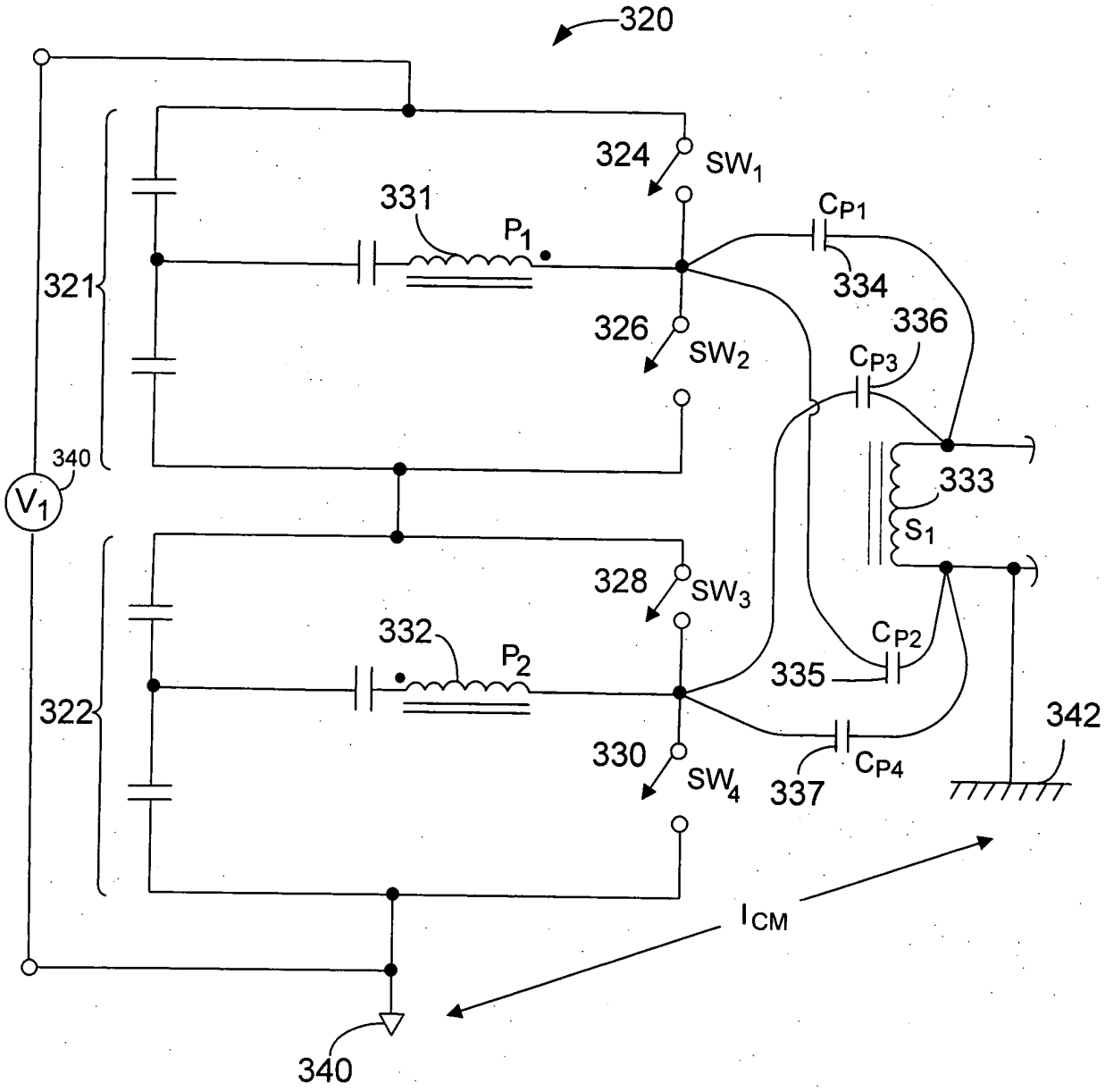

320
324
SW1
331
P1
CP1
334
321
326
SW2
336
CP3
340
V1
333
S1
328
SW3
332
P2
CP2
335
322
342
330
SW4
337
CP4
ICM
340

FIG. 8